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Screening effects in Kondo lattices with quenched disorder*

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We study the competition between the Kondo effect and frozen spin order in the Ising-like spin glass described by a Kondo lattice model with quenched disorder. Using the semi-fermionic representation of spin operators providing the rigorous treatment of the local constraint, we present the new set of mean-field equations for the non-diagonal and diagonal elements of the Parisi matrix. It has been shown that the screening of both matrix elements shows up at the time scale of the order of magnitude of the inverse Kondo temperature. As a result, the temperature of spin-glass transition is strongly suppressed when Ising and Kondo interactions become comparable.

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